

GP-302454

METHOD AND APPARATUS FOR CONTROLLING THE HEATING  
OF AN OXYGEN SENSOR IN A MOTOR VEHICLE

## ABSTRACT OF THE INVENTION

Methods and apparatus are provided for controlling the heating of an oxygen sensor in a motor vehicle. The apparatus comprises an oxygen sensor for measuring oxygen levels in exhaust gases of a motor vehicle. The oxygen sensor comprising a heater rod, an outer electrode surrounding the heater rod, and a shell surrounding the outer electrode and configured for mounting the oxygen sensor in the motor vehicle. A first electrical connection coupled to the outer electrode and a second electrical connection coupled to the shell are configured to facilitate measurement of capacitance between the outer electrode and the shell during operation of the motor vehicle.